

OM protein - protein search, using sw model  
Run on: March 1, 2001, 16:18:28 ; search time 64.32 Seconds  
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13	54	100.0	62	21	Y57810
14	54	100.0	63	21	Y57810
15	54	100.0	66	21	Y67780
16	54	100.0	70	21	Y75953
17	54	100.0	72	19	W504529
18	54	100.0	72	19	W504529
19	54	100.0	72	19	W42214
20	54	100.0	73	20	Y57935
21	54	100.0	75	18	W21583
22	54	100.0	76	20	Y02761
23	54	100.0	76	21	Y68907
24	54	100.0	80	17	W03343
25	54	100.0	86	20	Y6498
26	54	100.0	92	21	Y69209
27	54	100.0	93	20	Y6164
28	54	100.0	93	20	Y36211
29	54	100.0	100	21	Y65669
30	54	100.0	104	21	Y55661
31	54	100.0	105	21	Y55660
32	54	100.0	106	21	Y65659
33	54	100.0	112	21	Y56558
34	54	100.0	118	21	Y4985
35	54	100.0	118	21	Y6566
36	54	100.0	124	19	W6732
37	54	100.0	125	12	R13329
38	54	100.0	125	19	W81779
39	54	100.0	128	21	Y4987
40	54	100.0	149	8	P70057
41	54	100.0	150	8	P70058
42	54	100.0	165	12	R10533
43	54	100.0	169	20	Y60558
44	54	100.0	170	20	Y2215
45	54	100.0	233	21	Y74791
ALIGNMENTS					
RESULT	1				
Y36499					
ID	Y36499	standard; Protein; 27 AA.			
XX					
AC	Y36499;				
XX					
DT	17-SEP-1999	(first entry)			
XX					
DE	Fragment of human secreted protein encoded by gene 27.				
XX	Human; secreted protein; cancer; tumour; developmental abnormality; foetal deficiency; blood disorder; immune system disorder; inflammation; autoimmune disease; allergy; Alzheimer's disease; cognitive disorder; schizophrenia; arthritis; asthma; psoriasis; sepsis; skin disorder; atherosclerosis; diabetes; cardiovascular disorder; kidney disorder; digestive disorder; endocrine disorder; infection; AIDS.				
XX	Homo sapiens.				
XX	PR W09931117-A1.				
XX	PD 24 - JUN -1999.				
XX	PF 17-DEC-1998; 98WO-US27059.				
PR	19-DEC-1997; 97US-0068369.				
PR	18-DEC-1997; 97US-0068006.				
PR	18-DEC-1997; 97US-0068007.				
PR	18-DEC-1997; 97US-0068008.				
PR	18-DEC-1997; 97US-0068053.				
PR	18-DEC-1997; 97US-0068054.				
PR	18-DEC-1997; 97US-0068057.				
PR	18-DEC-1997; 97US-0068164.				
PR	18-DEC-1997; 97US-0070223.				
PR	19-DEC-1997; 97US-0068169.				

PR	19-DEC-1997;	97US-0068365.
FT	19-DEC-1997;	97US-0068368.
XX		
PA	(HUMA- ) HUMAN GENOME SCI INC.	
XX		
PI	Carter KC, Duan RD, Feng P, Ferrie AM, Florence C, Florence K, Greene JM, Janat F, Kyaw H, Moore PA, Ni J, Rosen CA, Ruben SM, Shi Y, Soppet DR, Wei Y; Yu G;	
XX		
DR	WPI; 1999-418749/35.	
XX	New isolated human genes encoding secreted polypeptides	
PS	Disclosure; Page 466; 537pp; English.	
XX		
CC	x97916 to x98029 represent 110 isolated human secreted protein genes.	
CC	y36224 to y36727 represent the secreted proteins encoded by the 110 human genes. The genes and their corresponding secreted polypeptides are useful for preventing, treating or ameliorating medical conditions, e.g. by protein or gene therapy. Also pathological conditions can be diagnosed by determining the amount of the new polypeptides in a sample or by determining the presence of mutations in the new genes. Specific uses are described for each of the 110 genes, based on which tissues they are most highly expressed in, and include developing products for the diagnosis or treatment of cancer, tumours, developmental abnormalities and foetal deficiencies, blood disorders, diseases of the immune system, autoimmune diseases, inflammation, allergies, Alzheimer's and cognitive disorders, schizophrenia, arthritis, asthma, psoriasis, sepsis, skin disorders, atherosclerosis, diabetes, cardiovascular disorders, kidney polypeptides, digestive/endocrine disorders, infections and AIDS. The sequences given in X97907 to X97915 and Y36223 are used in the exemplification of the present invention.	
SQ	Sequence 27 AA:	
XX		
RESULT	2	
Y70731		
ID	y70731 standard; protein; 31 AA.	
XX		
AC	Y70731;	
XX		
DT	24-JUL-2000 (first entry)	
XX		
DE	Wnt antagonist protein consensus sequence-1.	
XX		
KW	Wnt antagonist; contraceptive; contraceptive vaccine; oocyte development; female primate contraception; oocyte viability.	
XX		
OS	synthetic.	
XX		
FH	Key Location/Qualifiers	
FT	Misc difference 2	
FT	/label= Unknown	
FT	/note= "Xaa may be 9 amino acids in length; some amino acids may be absent"	
FT	Misc-difference 4	
FT	/label= Unknown	
FT	/note= "Xaa may be 42 amino acids in length; some amino acids may be absent"	
FT	Misc-difference 14	
FT		
PR	19-DEC-1997;	97US-0068367.
FT	Best Local Similarity 63.6%; Pred. No. 1, 1e+02; Matches 14; Conservative 8; Mismatches 0; Indels 0; Gaps 0	
XX		
PS	Claim 12; Page 44; 57pp; English.	
XX		
CC	The patent discloses a method of female primate contraception comprising administering an antagonist of a Wnt polypeptide, inhibiting oocyte development. Wnt polypeptides are useful for promoting maturation of an immature oocyte. Wnt polypeptides are also useful for increasing the number of mature oocytes and to enhance oocyte viability. The present peptide is a consensus sequence of Wnt antagonist which inhibits the physiological activity of a Wnt polypeptide. Antagonistic polypeptides may contain a cysteine-rich domain.	
XX		
PT	Contraceptive composition for inhibiting oocyte development in a female primate comprises a Wnt polypeptide antagonist	
XX		
PS	Query Match 100.0%; Score 54; DB 21; Length 31; Best Local Similarity 63.6%; Pred. No. 1, 1e+02; Matches 14; Conservative 8; Mismatches 0; Indels 0; Gaps 0	
XX		
QY	1 CXXCXXXXXXXXXXXXXXCXXC 22	
DB	5 ccccccccccxxxxxxcxxxxc 26	



PA (NPSP-) NPS PHARM INC.  
 XX PT Johnson JH, Kral RM, Krapcho K;  
 XX WPI; 1996-393030/39.  
 DR N-PSDB; T33769.

XX PT New insecticidal peptide(s) from venom of Calisoga spider - having  
 PT low toxicity to mammals, useful for controlling insect pests  
 XX  
 PS claim 2; Page 33; 53pp; English.

XX w05340 is a peptide derived from the venom of spiders of the  
 CC genus Calisoga. It is useful as an insecticide, having a neurotoxic  
 CC effect on Heliothis viscerens (tobacco budworm). The peptide is  
 CC derived from a larger protein sequence including a 41 amino acid (aa)  
 CC signal peptide region (see w05343) and is preferably recombinantly  
 CC administered to insects using a baculovirus host expression system  
 CC (or other natural insect pathogen, e.g. Bacillus). The peptide has  
 CC a low toxicity to mammals and can be recombinantly produced on a  
 CC large scale.

SQ sequence 39 AA;

Query Match 100.0%; Score 54; DB 17; Length 39;  
 Best Local Similarity 18.2%; Pred. No. 1.4e+02;  
 Matches 4; Conservative 18; Mismatches 0; Indels 0; Gaps 0;

OY 1 CXXXCXXXXXXXXXXXXXX 22  
 |:::|:::|:::|:::|:::|:::|:::|:::  
 Db 15 csgnqgtfwtcyirkdpckec 36

RESULT 7  
 ID W05342  
 ID W05342 standard; peptide; 39 AA.  
 XX  
 AC W05342;  
 XX  
 DT 15-APR-1997 (first entry)  
 XX  
 DE Calisoga spider venom peptide C, used as insecticide.  
 XX  
 KW Calisoga; spider; venom; insecticide; recombinant; baculovirus; pest;  
 KW tobacco budworm; Heliothis viscerens; low mammalian toxicity.  
 OS Calisoga sp.  
 XX  
 PF WO96255041-A1.  
 XX  
 PR 16-FEB-1996.  
 XX  
 PD 22-AUG-1996.  
 XX  
 PR 16-FEB-1996; 96WO-US2030.  
 XX  
 PR 17-FEB-1995; 95US-0390882.  
 XX  
 PA (NPSP-) NPS PHARM INC.  
 PI Johnson JH, Kral RM, Krapcho K;  
 XX  
 PN WO96255041-A1.  
 XX  
 PD 22-AUG-1996.  
 XX  
 PR 15-FEB-1996; 96WO-US2030.  
 XX  
 PR 17-FEB-1995; 95US-0390882.  
 XX  
 PA (NPSP-) NPS PHARM INC.  
 PI Johnson JH, Kral RM, Krapcho K;  
 XX  
 DR WPI; 1996-393030/39.  
 DR N-PSDB; T33770.

XX New insecticidal peptide(s) from venom of Calisoga spider - having  
 PT low toxicity to mammals, useful for controlling insect pests  
 XX  
 PS claim 4; Page 40; 53pp; English.

XX w05342 is a peptide derived from the venom of spiders of the  
 CC genus Calisoga. It is useful as insecticides having a neurotoxic  
 CC effect on Heliothis viscerens (tobacco budworm). The peptide is  
 CC derived from a larger protein sequence including a 41 amino acid (aa)  
 CC signal peptide region (see w05343) and is preferably recombinantly  
 CC administered to insects using a baculovirus host expression system  
 CC (or other natural insect pathogen, e.g. Bacillus). The peptide has  
 CC a low toxicity to mammals and can be recombinantly produced on a  
 CC large scale.

SQ sequence 39 AA;

Query Match 100.0%; Score 54; DB 17; Length 39;  
 Best Local Similarity 18.2%; Pred. No. 1.4e+02;  
 Matches 4; Conservative 18; Mismatches 0; Indels 0; Gaps 0;

OY 1 CXXXCXXXXXXXXXXXXXX 22  
 |:::|:::|:::|:::|:::|:::|:::|:::  
 Db 15 csgnqgtfwtcyirkdpckec 36



ID Y64770 standard; Protein; 44 AA.  
 XX  
 AC Y64770;  
 XX  
 DT 01-FEB-2000 (first entry)  
 XX  
 DE Human 5' EST related polypeptide SEQ ID NO:31.  
 KW Human; 5'; EST; expressed sequence tag; secreted protein; diagnosis;  
 KW gene therapy; chromosome mapping; upstream regulatory sequence;  
 KW forensic; location; development; protein synthesis; stability;  
 KW regulation; identification.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO953051-A2.  
 XX  
 PD 21-OCT-1999.  
 XX  
 PF 09-APR-1999; 99WO-IB00712.  
 XX  
 PR 09-APR-1998; 98US-0057719.  
 PR 28-APR-1998; 98US-0069047.  
 XX  
 PA (GEST ) GENSET.  
 XX  
 PI Dumas Milne Edwards J, Ducleart A, Giordano J;  
 XX  
 DR WPI; 2000-038446/03.  
 XX  
 N-PSDB; Z42384.  
 XX  
 PT Novel secreted protein 5' expressed sequence tag sequences used in  
 PT diagnostic, forensic, gene therapy, and chromosome mapping procedures  
 XX  
 PS Claim 3; Page 637; 837pp; English.  
 XX  
 PA 242265 to 243075 represent novel 5' expressed sequence tag (EST)  
 CC sequences corresponding to human secreted proteins. Y64651 to Y65438  
 CC represent the EST-related proteins corresponding to Z42265 to Z43052.  
 CC The 5' ESTs can be used for producing secreted human gene products.  
 CC They can be used to identify and isolate 5' untranslated regions (UTRs)  
 CC and upstream regulatory regions which control the location, development  
 CC stage, rate, and quantity of protein synthesis, as well as stability of  
 CC mRNA. The ESTs are also useful as probes for chromosome mapping, and to  
 CC obtain full length cDNA clones. The ESTs can also be used in forensic  
 CC procedures to identify individuals, or in diagnostic procedures to  
 CC identify individuals having genetic diseases resulting from abnormal  
 CC gene expression. The products may also be used in gene therapy protocols.  
 CC The nucleic acids encoding signal peptides can be used for directing  
 CC extracellular secretion of a polypeptide or the insertion of a  
 CC polypeptide into a membrane, or importing a polypeptide into a cell.  
 CC The proteins encoded by the EST sequences may be useful in treating a  
 CC variety of human conditions. Secreted proteins have therapeutic value,  
 CC and the identification of new secreted proteins is valuable. Z42249 to  
 CC Z42264 and Y64644 to Y6450 represent sequences used in the  
 CC exemplification of the present invention.  
 XX  
 SQ Sequence 44 AA:  
 Query Match 100.0%; Score 54; DB 21; Length 44;  
 Best Local Similarity 18.2%; Pred. No. 1.5e+02;  
 Matches 4; Conservative 18; Mismatches 0; Indels 0; Gaps 0;  
 Oy 1 CXXXCXXXXXXXXXXXXXXCXXC 22  
 | :|:|:|:|:|:|:|:|:|:  
 Do 16 cktgckctscrcppceqcssgc 37  
 RESULT 12  
 Y57812  
 ID Y57812 standard; protein; 59 AA.  
 XX  
 AC Y57812;  
 XX  
 DT 22-MAR-2000 (first entry)  
 XX  
 DE Trout metallothionein Class I amino acid sequence.  
 XX  
 KW Metallothionein; metal recovery; remediation; heavy metal;  
 KW precious metal; phytochelatin; green algae; Chlamydomonas reinhardtii.  
 XX  
 OS Salmo sp.  
 XX  
 PN WO960838-A1.

AC Y57813;  
 XX  
 DT 22-MAR-2000 (first entry)  
 XX  
 DE Crab metallothionein Class I amino acid sequence.  
 KW Metallothionein; metal recovery; remediation; heavy metal;  
 KW precious metal; phytochelatin; green algae; Chlamydomonas reinhardtii.  
 XX  
 OS Eubrachyura.  
 XX  
 PN WO960838-A1.  
 XX  
 PD 02-DEC-1999.  
 XX  
 PT 28-MAY-1999; 99WO-US12007.  
 XX  
 PR 28-MAY-1998; 98US-0087374.  
 XX  
 PA (OHIS ) UNIV OHIO STATE RES FOUND.  
 XX  
 PT Sayre RT, Traina SJ;  
 XX  
 DR WPI; 2000-086546/07.  
 XX  
 PT Novel method for metal recovery, remediation and separation -  
 XX  
 PS Disclosure; Page 6; 86pp; English.  
 XX  
 CC The present invention describes a transgenic algal cell (I) of the  
 genus Chlamydomonas comprising reproductive genetic material comprising  
 a nucleotide sequence capable of expressing chicken type I  
 Metallothionein. Also described is a method of removing metal from  
 an aqueous medium containing at least one dissolved or suspended  
 metal. The transgenic algae are used for the selective separation of  
 CC metals, particularly the separation of precious and desirable metals  
 CC such as gold and uranium, from other metals such as cadmium, zinc and  
 CC copper. The method can be used to facilitate the selective recovery of  
 CC precious and rare metals from mineral sources where aqueous media can  
 CC be used, such as in natural surface water flows, ground water and where  
 CC water may be introduced. The method is suitable for well-drilling,  
 CC soil and water remediation arts, mining fields, and industrial  
 CC engineering. The present sequence represents a Class I metallothionein  
 CC given in the present invention.  
 XX  
 SQ Sequence 57 AA;  
 Query Match 100.0%; Score 54; DB 21; Length 57;  
 Best Local Similarity 18.2%; Pred. No. 1.9e-02;  
 Matches 4; Conservative 18; Mismatches 0; Indels 0; Gaps 0;



CC such as gold and uranium from other metals such as cadmium, zinc and copper. The method can be used to facilitate the selective recovery of precious and rare metals from mineral sources where aqueous media can be used, such as in natural surface water flows, ground water and where water may be introduced. The method is suitable for well-drilling, soil and water remediation arts, mining fields, and industrial engineering. The present sequence represents a class II metallothionein given in the present invention.

XX SQ Sequence 63 AA;

Query Match 100.0%; Score 54; DB 21; Length 63;  
Best Local Similarity 18.2%; Pred. No. 2.1e+02;  
Matches 4; Conservative 18; Mismatches 0;  
Qy 1 CXXCXXXXXXXCCXXC 22  
Db 34 ccgcinaackcangckcgsgc 55

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Job time: 498 sec

CC polypeptide into a membrane, or importing a polypeptide into a cell.  
CC The proteins encoded by the EST sequences may be useful in treating a  
CC variety of human conditions. Secreted proteins have therapeutic value,  
CC and the identification of new secreted proteins is valuable. Z42249 to  
CC 242264 and Y64444 to Y64550 represent sequences used in the  
CC exemplification of the present invention.

XX SQ Sequence 66 AA;

Query Match 100.0%; Score 54; DB 21; Length 66;  
Best Local Similarity 18.2%; Pred. No. 2.2e+02;  
Matches 4; Conservative 18; Mismatches 0;  
Indels 0; Gaps 0;  
Qy 1 CXXCXXXXXXXXXXCCXXC 22  
Db 17 clvscvlcvvvccwccw 38

RESULT 15  
Y64780 standard; Protein: 66 AA.  
ID Y64780;  
XX AC Y64780;  
XX DT 01-FEB-2000 (first entry)  
DE Human 5' EST related polypeptide SEQ ID NO:941.  
XX KW Human; 5' EST; expressed sequence tag; secreted protein; diagnosis;  
KW gene therapy; chromosome mapping; upstream regulatory sequence;  
KW forensic; location; development; protein synthesis; stability;  
KW regulation; identification.  
XX OS Homo sapiens.  
XX PN WO9953051-A2.  
XX PD 21-OCT-1999.  
XX PF 09-APR-1999; 99W0-1B00712.  
XX PR 09-APR-1998; 98US-005719.  
XX PR 28-APR-1998; 98US-0069047.  
PA (EST ) GENSET.  
XX PI Dumas Milne Edwards J, Ducleart A, Giordano J;  
XX DR WPI; 2000-038446/03.  
DR N-PSDB; Z42394.  
XX PT Novel secreted protein 5' expressed sequence tag sequences used in  
PT diagnostic, forensic, gene therapy, and chromosome mapping procedures  
XX PS Claim 3; Page 640; 837pp; English.  
XX  
CC 242265 to 243075 represent novel 5' expressed sequence tag (EST)  
CC sequences, corresponding to human secreted proteins. Y64651 to Y65438  
CC represent the EST-related proteins corresponding to Z42265 to Z43052.  
CC The 5' ESTs can be used for producing secreted human gene products.  
CC They can be used to identify and isolate 5' untranslated regions (UTRs)  
CC and upstream regulatory regions which control the location, development  
CC stage, rate, and quantity of protein synthesis, as well as stability of  
CC RNA. The ESTs are also useful as probes for chromosome mapping, and to  
CC obtain full length cDNA clones. The ESTs can also be used in forensic  
CC procedures to identify individuals, or in diagnostic procedures to  
CC identify individuals having genetic diseases resulting from abnormal  
CC gene expression. The products may also be used in gene therapy protocols.  
CC The nucleic acids encoding signal peptides can be used for directing  
CC extracellular secretion of a polypeptide or the insertion of a